

# House File 507 - Introduced

HOUSE FILE 507  
BY COMMITTEE ON EDUCATION

(SUCCESSOR TO HSB 107)

## A BILL FOR

1 An Act relating to computer science education by providing  
2 for education standards by the state board of education,  
3 for instructor endorsements and authorizations issued by  
4 the board of educational examiners, for establishment of a  
5 computer science professional development incentive fund,  
6 and for the establishment of a computer science education  
7 work group.  
8 BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF IOWA:

1     Section 1. Section 256.7, subsection 26, paragraph a, Code  
2 2017, is amended by adding the following new subparagraph:

3     NEW SUBPARAGRAPH. (4) The rules shall provide for the  
4 establishment of high-quality standards for computer science  
5 education taught by elementary, middle, and high schools,  
6 in accordance with the goal established under section  
7 284.6A, subsection 1, setting a foundation for personal and  
8 professional success in a high-technology, knowledge-based  
9 Iowa economy. Such rules shall be applicable only to school  
10 districts and accredited nonpublic schools receiving moneys  
11 from the computer science professional development incentive  
12 fund under section 284.6A, or from other funds administered by  
13 the department for the same purposes as specified in section  
14 284.6A, subsection 2.

15     Sec. 2. Section 272.2, Code 2017, is amended by adding the  
16 following new subsection:

17     NEW SUBSECTION. 20. Establish by rule endorsements and  
18 authorizations for computer science instruction, including  
19 traditional and nontraditional pathways for obtaining such  
20 endorsements or authorizations.

21     Sec. 3. NEW SECTION. **284.6A Computer science professional**  
22 **development incentive fund — legislative findings.**

23     1. The general assembly finds and declares all of the  
24 following:

25     a. That instruction in high-quality computer science for  
26 elementary, middle school, and high school students establishes  
27 a foundation for personal and professional success in a  
28 high-technology, knowledge-based Iowa economy.

29     b. It is the goal of the general assembly that by July  
30 1, 2019, each accredited high school offer at least one  
31 high-quality computer science course, each accredited middle  
32 school offer instruction in exploratory computer science, and  
33 each accredited elementary school offer instruction in the  
34 basics of computer science.

35     c. It is the intent of the general assembly to appropriate

1 moneys for purposes of the computer science professional  
2 development incentive fund for the fiscal year beginning July  
3 1, 2018.

4 2. Subject to an appropriation of sufficient funds by  
5 the general assembly, the computer science professional  
6 development incentive fund is established in the state treasury  
7 under the control of the department. The department may  
8 disburse moneys contained in the fund to a school district  
9 or accredited nonpublic school, or a collaborative of one or  
10 more school districts, accredited nonpublic schools, and area  
11 education agencies, that apply to the department, in the manner  
12 prescribed by the department, to receive moneys from the fund  
13 to provide proven professional development activities for Iowa  
14 teachers in the area of computer science education.

15 3. Notwithstanding section 8.33, moneys in the computer  
16 science professional development incentive fund that remain  
17 unencumbered or unobligated at the close of the fiscal year  
18 shall not revert but shall remain available for expenditure  
19 for the purposes designated until the close of the succeeding  
20 fiscal year.

21 Sec. 4. COMPUTER SCIENCE EDUCATION WORK GROUP.

22 1. The director of the department of education shall  
23 convene a computer science education work group to identify  
24 and recommend measures for incentivizing school districts and  
25 accredited nonpublic schools to meet the following goals by the  
26 school year beginning July 1, 2019:

27 a. Offer at least one high-quality computer science course  
28 in each high school.

29 b. Offer instruction in exploratory computer science in  
30 each middle school.

31 c. Offer instruction in the basics of computer science in  
32 each elementary school.

33 2. The work group shall also develop recommendations that,  
34 at a minimum, address or identify the following:

35 a. How one or more high-quality computer science courses can

1 satisfy high school graduation requirements for mathematics or  
2 science.

3 b. How one or more high-quality computer science courses can  
4 be integrated into a career and technical education pathway.

5 c. Multiple settings for the delivery of high-quality high  
6 school computer science courses, including traditional high  
7 school classes, concurrent enrollment classes, and online  
8 learning classes that include the opportunity for students to  
9 collaborate within a classroom setting.

10 d. Guidelines for creating a kindergarten through grade  
11 twelve career pathway in computer science, with an appropriate  
12 scope and sequence for high-quality computer science  
13 instruction at each such grade level.

14 e. How the computer science professional development  
15 incentive fund established under section 284.6A, if enacted  
16 by this Act, could be used to meet the goals set forth in  
17 subsection 1.

18 3. a. The membership of the work group shall represent  
19 kindergarten through grade twelve school districts and  
20 accredited nonpublic schools, higher education, business,  
21 labor, and other appropriate stakeholders.

22 b. The membership of the work group shall also include  
23 four members of the general assembly. The legislative members  
24 shall serve as ex officio, nonvoting members of the work group,  
25 with one member to be appointed by each of the following: the  
26 majority leader of the senate, the minority leader of the  
27 senate, the speaker of the house of representatives, and the  
28 minority leader of the house of representatives.

29 4. The work group shall submit its findings and  
30 recommendations, including any proposed legislation, in a  
31 report to the governor, the state board of education, and the  
32 general assembly by November 1, 2017.

33 Sec. 5. DIRECTIVE TO STATE BOARD OF EDUCATION. The state  
34 board of education shall submit a notice of intended action to  
35 the administrative rules coordinator and the administrative

1 code editor pursuant to section 17A.4, subsection 1, paragraph  
2 "a", not later than December 13, 2017, for the adoption of  
3 rules to implement section 256.7, subsection 26, paragraph "a",  
4 subparagraph (4), as enacted in this Act.

5 EXPLANATION

6 The inclusion of this explanation does not constitute agreement with  
7 the explanation's substance by the members of the general assembly.

8 This bill requires the state board of education to adopt  
9 computer science education standards, requires the board of  
10 educational examiners to establish computer science instructor  
11 endorsements and authorizations and alternative pathways to  
12 obtain such endorsements and authorizations, establishes a  
13 computer science professional development incentive fund in  
14 the state treasury, and directs the department of education to  
15 convene a computer science education work group.

16 The bill directs the state board of education to adopt rules  
17 providing for the establishment of high-quality standards  
18 for computer science education taught by elementary, middle,  
19 and high schools. The rules shall be applicable only to  
20 those school districts and schools that receive moneys from  
21 the incentive fund or from other funds administered by the  
22 department for the same purposes as specified for the incentive  
23 fund. The state board must submit notice of intended action as  
24 provided in Code section 17A.4(1)(a) by December 13, 2017.

25 The board of educational examiners is directed to establish  
26 by rule endorsements and authorizations for computer science  
27 instruction, including traditional and nontraditional pathways  
28 for obtaining such endorsements or authorizations.

29 Under the bill, the general assembly finds and declares  
30 that instruction in high-quality computer science for  
31 elementary, middle school, and high school students establishes  
32 a foundation for personal and professional success in a  
33 high-technology, knowledge-based Iowa economy. The goal of  
34 the general assembly is for each accredited high school to  
35 offer at least one high-quality computer science course, each

1 accredited middle school to offer instruction in exploratory  
2 computer science, and each accredited elementary school to  
3 offer instruction in the basics of computer science.

4 It is the intent of the general assembly to appropriate  
5 moneys for purposes of the computer science professional  
6 development incentive fund for the fiscal year beginning July  
7 1, 2018. The fund is established by the bill in the state  
8 treasury under the control of the department, subject to an  
9 appropriation of sufficient funds by the general assembly.

10 Moneys from the fund can be disbursed to a school district  
11 or accredited nonpublic school, or a collaborative of one or  
12 more school districts, accredited nonpublic schools, and area  
13 education agencies, to provide proven professional development  
14 activities for Iowa teachers in the area of computer science  
15 education. A school district, accredited nonpublic school, or  
16 a collaborative, as appropriate, must apply to the department  
17 in the manner prescribed by the department in order to  
18 receive moneys from the fund. Moneys in the fund that remain  
19 unencumbered or unobligated at the close of the fiscal year  
20 shall not revert but shall remain available for expenditure  
21 for the purposes designated until the close of the succeeding  
22 fiscal year.

23 The bill requires the director of the department of  
24 education to convene a computer science education work group  
25 to identify and recommend measures for incentivizing school  
26 districts and accredited nonpublic schools to meet, by the  
27 school year beginning July 1, 2019, the goals of offering at  
28 least one high-quality computer science course in each high  
29 school, offering instruction in exploratory computer science in  
30 each middle school, and offering instruction in the basics of  
31 computer science in each elementary school.

32 The work group must also develop recommendations that, at  
33 a minimum, address or identify how one or more high-quality  
34 computer science courses can satisfy high school graduation  
35 requirements for mathematics or science; how one or more

1 high-quality computer science courses can be integrated into  
2 a career and technical education pathway; multiple settings  
3 for the delivery of high-quality high school computer science  
4 courses, including traditional high school classes, concurrent  
5 enrollment classes, and online learning classes that include  
6 the opportunity for students to collaborate within a classroom  
7 setting; guidelines for creating a kindergarten through grade  
8 12 career pathway in computer science, with an appropriate  
9 scope and sequence for high-quality computer science  
10 instruction at each such grade level; and how the computer  
11 science professional development incentive fund could be used  
12 to meet the computer science instruction goals.

13     The work group's membership must represent kindergarten  
14 through grade 12 school districts and accredited nonpublic  
15 schools, higher education, business, labor, and other  
16 appropriate stakeholders, and include four ex officio,  
17 nonvoting legislative members. The work group must submit  
18 its findings and recommendations, including any proposed  
19 legislation, in a report to the governor, the state board of  
20 education, and the general assembly by November 1, 2017.